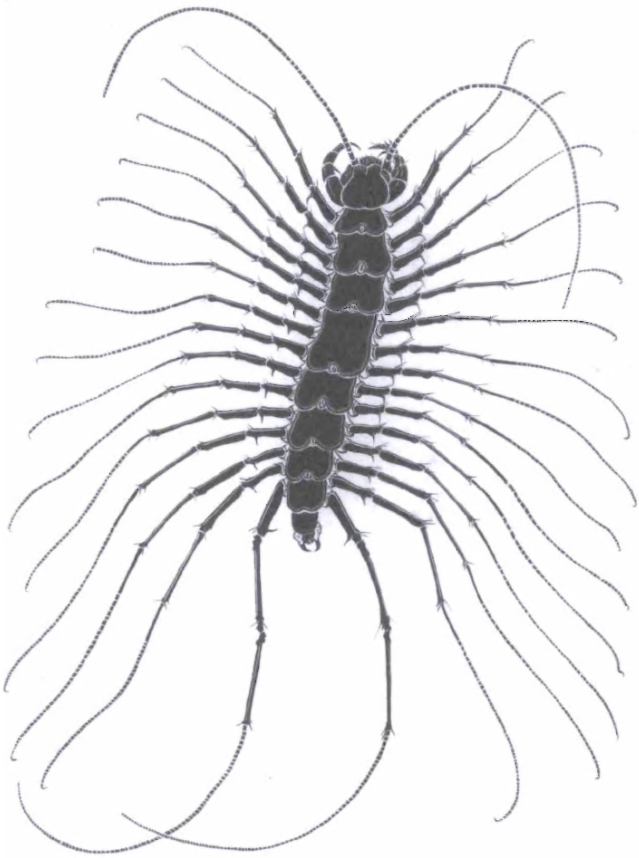
MYRMECIA

News Bulletin of the Australian Entomological Society Inc.

Volume 40, Part 1, January 2004

Australia Post Print Post Publication PP242296/00144.

Price $5.50 (including GST) ISSN 1323-6032



AUST. ENTOMOL. SOC. EXECUTIVE ADDRESS
Australian Entomological Society Executive
c/- Department of Primary Industries
Private Bag 15, Ferntree Gully Delivery Centre
VIC 3156, AUSTRALIA

SOCIETY WEB SITE
http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/myrmecia.htm

Patron
His Excellency, Major General Michael Jeffery AC CVO MC, Governor-General of the Commonwealth of Australia

OFFICE BEARERS

President
James Ridsdill-Smith
CSIRO Entomology,
Private Bag No. 5. PO Wembley,
Western Australia 6014
james.ridsdill-smith@csiro.au

Vice President
Dr P.M. Ridland
c/- Executive Address above
Ph (03) 9210 9222
Fax (03) 9800 3521
Peter.Ridland@dpi.vic.gov.au

Secretary
Ms N.M. Endersby
c/- Executive Address above
Ph (03) 9210 9222
Fax (03) 9800 3521
Nancy.Endersby@dpi.vic.gov.au
Nancy.Endersby@sci.monash.edu.au

Treasurer
Mr I.D. Endersby
56 Looker Rd
Montmorency VIC 3094
Ph (03) 9435 4781
Fax (03) 9435 4781
endersby@mira.net

Public Officer
Dr E. Jane Wright
CSIRO Entomology
GPO Box 1700 Canberra ACT 2601
Ph (02) 6246 4183
Fax (02) 6246 4202
e.jane.wright@csiro.au

THE COVER

Kath White, Newcastle University, was awarded a prize at Hobart in the AES Insect Illustration competition for this drawing of a centipede.

Promotions Officer
Dr Glynn Maynard
AFFA
GPO Box 858
Canberra ACT 2601
Ph (02) 6272 3544
glynn.maynard@affa.gov.au

Chief Editor
Dr Peter Allsopp
Manager - Special Projects
Bureau of Sugar Experiment Stations
PO Box 86 Indooroopilly Qld 4068
Ph (07) 4132 5200 Fax (07) 4132 5253
Mobile 0408182614 email pallsopp@bses.org.au

Assistant Editor
Dr Tony Clarke
Queensld University of Technology
GPO Box 2434
Brisbane QLD 4001
Ph: (07) 3864 5023
Fax: (07) 3864 2330
A.Clarke@qut.edu.au

Technical Editors
Dr A.L. Bishop
Horticultural Research Station
Box 26 Gosford NSW 2250
Ph (02) 4348 1928
Fax (02) 4348 1910
alan.bishop@agric.nsw.gov.au

Dr K.L. Walker
· Museum Victoria
GPO Box 666E
Melbourne Vic 3001
Ph (03) 8341 7432
Fax (03) 8341 7750
kwalker@musem.vic.gov.au

Dr A. Andersen
CSIRO Wildlife & Ecology
Tropical Ecosystems Research Centre
PMB 44, Winnellie NT 0821
Ph (08) 8944 8431
Fax (08) 8944 8444
Alan.Andersen@csiro.au

SOCIETY SUSTAINING ASSOCIATES

Bayer CropScience Pty Ltd
Integrated Pest Management (Bugs for Bugs)

COUNCILLORS

Australian Capital Territory
Mr Kimberi Pullen
CSIRO Entomology
GPO Box 1700
Canberra, ACT, 2601
Ph (02) 6246 4263
Fax (02) 6246 4364
kim.pullen@csiro.au

New South Wales
Mr Aaron Simmons
The University of Sydney,
Orange
PO Box 883
Orange NSW 2800
Ph (02) 6360 5630
Fax (02) 6360 5626
asimmons@orange.usyd.edu.au

Dr Alan Clift
Department of Crop Sciences
University of Sydney
NSW 2006
Ph (02) 9351 2938
Fax (02) 9351 7504
clifta@agric.usyd.edu.au

Northern Territory
Dr Tracy Dawes-Gromadzki
CSIRO Tropical Ecosystems
Research Centre, PMB 44
Winnellie NT 0822
Ph (08) 8944 8400
Fax (08) 8944 8444
tracy.dawes-
gromadzki@csiro.au

Queensland
Ms Kerrie Huxham
NAQS AQIS
Centre for Tropical Agriculture
PO Box 1054
Mareeba QLD 4880
Ph (07) 4048 4600
Fax (07) 4092 3593
kerrie.huxham@aqis.gov.au

Ms Jane Royer
Qld Dept Primary Industries
21 Redden St
Cairns QLD 4870
Ph: (07) 4044 1640
jane.royer@dpi.qld.gov.au

Ms Bronwyn Walsh
Queensland Horticulture Institute
Dept Primary Industries
Gatton Research Station
Locked Bag 7, MS 437
Gatton QLD 4343
Ph (07) 5466 2222
Fax (07) 5462 3223
Bronwyn.Walsh@dpi.qld.gov.au

Papua New Guinea
Dr Lastus Kuniata
Ramu Sugar Ltd
P.O.Box 2183,Lae 411
Papua New Guinea
Ph 675 474 3299;
Fax 675 474 3295
lkuniata@ramusugar.com.pg

South Australia
Glenys Wood
SARDI
GPO Box 397
Adelaide SA 5001
Ph (08) 8303 9660
Fax (08) 8303 9542
Wood.glenys@saugov.sa.gov.au

Tasmania
Simon Grove
Conservation Biologist
Forest Research & Development
Forestry Tasmania
GPO Box 207
Hobart Tas 7001
Ph (03) 6233 8141
Fax (03) 6223 8292
simon.grove@forestrytas.com.au

Victoria
Dr Linda Thomson
CESAR
La Trobe University
Bundoora Vic 3083
Ph (03) 9479 2256
L.Thomson@latrobe.edu.au

Western Australia
Dr Tara Simmul
Serve-Ag, WA
11A Pike Street
Karrinyup WA 6018
Ph 0407 295 171
mendham@smartchat.net.au

SOCIETY REPRESENTATIVES

Entomological Society of New South Wales
E.E. Taylor
5 Endeavour Avenue
La Perouse
NSW 2036

Entomological Society of Queensland
Dr Jenny Beard
Department of Zoology & Entomology
University of Queensland
St Lucia QLD 4072

Entomological Society of Victoria
Mr Ian Endersby (acting)
56 Looker Road
Montmorency VIC 3094
Ph (03) 9435 4781
endersby@mira.net

SOCIETY HONORARY MEMBERS
Dr B.R. Champ
Dr I.F.B. Common
Dr C.N. Smithers

MACKERRAS MEDALLISTS
1984 Dr J.A.L. Watson
1986 Dr R.W. Sutherst
1988 Dr T.R. New
1990 Dr R.A.I. Drew
1992 Dr E.S. Nielsen
1996 Dr M.P. Zalucki
2000 Dr P.G. Allsopp
2002 Dr G.P. Fitt

IMMEDIATE PAST PRESIDENT
Prof. A.D. Austin
University of Adelaide,
Waite Campus, Private Mail Bag 1,
Glen Osmond, South Australia 5064

***MYRMECIA* EDITOR**
Laurence Mound
laurence.mound@csiro.au

ASSISTED BY:
Tish Silberbauer: lsilberb@metz.une.edu.au

CONSERVATION COMMITTEE
The Vice President & Secretary are *ex officio* members of the Conservation Committee

Convenor
Dr R. V. Gunning
Ph (02) 6763 1128
Fax (02) 6763 1222
rgunning@enternet.com.au

Prof Jonathan Majer (WA)
Ph (08) 9266 7041
Fax (08) 9266 2495
J.Majerj@curtin.edu.au

Dr T. New (Vic)
Ph (03) 9479 2247
Fax (03) 9478 1551
T.New@zoo.latrobe.edu.au

Claire Stephens (SA)
Ph (08) 8303 7276
Fax (08) 8379 4095
claire.stephens@adelaide.edu.au

Dr A. N. Andersen (NT)
Ph (08) 8944 8431
Fax (08) 8944 8444
Alan.Andersen@csiro.au

Dr D. P. Sands (Qld)
Ph (07) 3214 2803
Don.Sands@csiro.au

Printed by:
GOANNA PRINT
151-155 Gladstone St.
Fyshwick ACT 2609
Fax (02) 6280 7369

Distributed by:
Blackwell Publishing Asia
550 Swanston St
CARLTON VIC 3053
Ph (03) 9347 0300

MYRMECIA WEB ADDRESS:

http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/myrmecia.htm

CONTENTS

Editorial	1
Obituary Dr Ev Britton	2
Presidential News	4
Treasury Notes	4
On drawing a centipede...	5
Lord Howe Island stick insect	5
Student notes from Hobart	5
Australia and the ESA Meetings, Ohio	6
AES Executive Reports	8
Mackerras Medal	9
Australian Science Magazine	9
Book Notice - Grasshoppers & Locusts	10
Regional News	
ACT	11
New South Wales	11
Northern Territory	12
Queensland – North	15
Queensland – South	16
South Australia	18
Tasmania	20
Victoria	23
Western Australia	24
PNG	25
Notices	26
Membership Nomination Form	27

NOTICE

Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.

COPY DEADLINE FOR NEXT ISSUE

Material for publication in our April 2004 issue should be in the hands of the Editor before **Friday 23 April 2004**.

Copy is requested as .rtf e-mail attachments at: laurence.mound@csiro.au

EDITORIAL

I hope you like our cover illustration for 2004, despite the facts that it is not an insect, and it did not win a first prize at the annual AES illustration competition. Our judges at Hobart demonstrated their taxonomic prejudices and chose something that was accurate and clearly delineated, but flat and uninteresting. Like a taxonomic description, the winning picture was workmanlike but with little to catch the imagination. In contrast, for a cover illustration we need a design that is stimulating, both visually and intellectually. That is, it should convey to the observer some idea of the excitement of the biology and behaviour of the organism depicted. To do that, the illustrator must go beyond mere accuracy and become an artist – an interpreter and creator. The chilopod on our cover runs faster than almost any other arthropod. But how? The legs are slender with no large muscles and, live or dead, they are even more dehiscent than those of a tipulid fly. The late Sydnie Manton, a renowned specialist on arthropod limbs, spent many hours photographing scutigeromorphs without being able to decide on the pattern of leg movements in these voracious predators. But Kath White's illustration catches the essence – the net of legs spread out, both to catch suitable prey and to waft the organism like a barely perceived shadow back under a dead log when threatened. If we want to attract good students, and good funding, we have to go beyond facts and, like this illustrator, sell our subject by emphasising the significance of our facts in some broader context. "Where is the knowledge we have lost in information?" Eliot's question has disturbed me for half a century, and it becomes steadily more apposite with increasing dependence on those appalling harvests reaped with Google by so many students. Perhaps, like Prufrock, I grow old – but unlike him I think I will keep my computer cable (rather than the bottoms of my trousers) rolled. Moreover, in the hope that you can still find stimulation in the study of insects, I urge you to read the notes from our President below – and to join us at Brisbane in August.

Having prepared this issue of *Myrmecia* for printing, with the full cooperation from your Councillors and Executive in meeting our copy deadline, de-

spite the Christmas recess, I discovered that production of the current issue of *AJE* at Blackwells was seriously delayed, and that this copy would therefore be late in being distributed to you. Taking advantage of this delay, I decided to 'stop the press' and include two items that are of considerable interest to the entomological community. First, and sadly, we have an obituary celebrating the career of our esteemed Coleoptera colleague, Ev Britton, who died on 18 January aged 91 years. Second, an advance copy of the long awaited identification handbook to Australian grasshoppers and locusts by David Rentz and colleagues landed on my desk as I was finalising these pages, and an enthusiastic book notice is included in this issue, together with the promise of a more extensive review in the future.

LAM

OBITUARY

Everard Baldwin Britton, D.Sc.
1912 - 2004

Ev Britton was born in Cardiff, Glamorganshire, Wales on 16.vii.1912. While his father was in the army during WW1, Ev lived with his mother in the small seaside village of West Angle, near Pembroke. There, according to his first teacher, he spent much time turning over stones and peering under bark.

A conscientious student at school, he won two scholarships to University College, Cardiff, majoring in Zoology, Botany and Chemistry, graduating with First Class Honours in Zoology in 1933. He became a Fellow of the Royal Entomological Society of London in 1935, gained his M.Sc. in 1936, and was awarded a D.Sc. in 1961 for his contributions to Entomology.

After graduation, Ev went almost immediately into employment with the British Museum (Natural History) as Assistant Keeper in the Department of Entomology where he worked until the outbreak of World War II. During this time, he was responsible for the organisation and use of the world collection of beetles, and visited southwest Arabia with the British Museum expedition in 1936-7. His main research interests were the Carabidae of New Zealand and Hawaii and the fauna of Yemen. An extended expedition to the Yemen with Hugh Scott is documented in Hugh's "*In the High Yemen*" which was first published in 1942. Ev's interest in the Australian Melolonthinae (Chafers) was stimulated when the then Chief of the CSIR Division of Entomology in Canberra, A.J. Nicholson, requested a specialist be appointed for a period of 12 months to work in Australia to study the Melolonthinae beetles, in view of their importance to agriculture in Australia. Ev volunteered and spent 14 months in Australia and New Zealand.

During the war, Ev became a Radio Officer with Britain's Anti Aircraft Command but, in 1942, he joined a group of "boffins" with the Army Operations Research Group developing the emerging radar technology.

1945 saw him rejoin the British Museum (Natural History) as Principal Scientific Officer, a position that involved travelling through post-war Europe, assessing insect collections, and to the Americas. But, with his interest in the Australian beetle fauna, he was seconded to the CSIR Division of Entomology in 1946 and 1947. This visit resulted in the publication in 1957 of the book "*A Revision of the Australian Chafers*".

Ev married Joyce Webb at Caxton Hall, London in 1949. At the time of their marriage Joyce was an established milliner at Esher, Surrey, later studying to become a 'Cordon bleu' chef and teacher. Together, they designed and had built their home in Oxshott, Surrey where they enjoyed entertaining guests, especially Entomologists, from all corners of the globe. They had two children, Susan and Bridget and a Siamese cat, Jasper.

While at the British Museum, Ev took an active part in the Royal Entomological Society, acting as Editor in 1948, Honorary Secretary from 1951 to 1957 and serving on Council in 1949 and 1958. In similar fashion, he was Treasurer of the Systematics Association for four years and Entomological Editor of the "Annals and Magazine of Natural History" for ten years.

In 1936, he published his first paper and, by the time he left England for Australia in 1964, he had 33 papers to his name covering some 742 pages as well as a large manuscript revising a further section of the Australian Melolonthinae.

He again visited the (by now) CSIRO Division of Entomology in 1962 and, with an obvious love of Australia and fascination for the Australian beetle fauna, he successfully applied to join CSIRO Division of Entomology in 1963. Although appointed a Research Scientist with CSIRO early in 1964, he remained in England for a few months to study the Australian material in the British Museum and, in September 1964, with his family (and Joyce's baby grand piano), sailed for Australia on the ocean liner, Oronsay.

During his "reign" in the Coleoptera section, Ev was instrumental in introducing the "unit tray" system into the Australian National Insect Collection. He was a tireless worker both in the laboratory and in

the field, and will always be remembered by those who worked with him in the field as being totally unflappable regardless of the conditions. Ev eagerly participated in a number of major field expeditions, visiting central Australia, the Nullarbor, both the Pilbara and south western Western Australia and Arnhem Land (the latter involving a major investigation of the area prior to the establishment of Kakadu National Park). However, he clearly found our menu on field trips "somewhat unspeakable" (which is not surprising considering his wife's culinary skills). On these field trips, he frequently carried with him journals of the early explorers in the regions in which we were surveying and would read extracts to us from the back seat as we travelled from one site to another.

He was author of the Coleoptera chapter in the first edition of "Insects of Australia" in 1970, the Supplement in 1974, and a co-author of the similar chapter in the second edition in 1991. He was also co-author with John Lawrence of a book, "*Australian Beetles*" published in 1994. His main research work with the CSIRO was on the Melolonthinae 'chafers' and he produced five volumes of over 800 pages dealing with this group as well as a number of other papers. In 1974, he paid a return visit of some six months to the British Museum (Natural History).

On retirement in 1977, Ev actively continued his work on the Australian beetle fauna as an Honorary Research Fellow, finally retiring in July 2000. In retirement, Ev continued his review of the genus *Heteronyx* in which he dealt with 353 species. Not only was this a mammoth research project but, having taught himself to use the computer in retirement, it included laboriously typing the entire manuscript. His use of the computer enabled him to maintain contact with his many friends via the internet. This was fortunate as it was a timely replacement for his long involvement as a 'Ham' radio operator that had become increasingly difficult due to his failing hearing.

During his retirement, Ev also acted as a Valuer of Insect Collections for the government's Cultural Gifts Program. He maintained his life-long support for the environment and his interest in all matters scientific and philosophical. Always an avid reader, he had a particular interest in the study of "time and space". He took great pleasure in his books having built up an excellent reference library from which he could usually lay his hands quickly on just the right bit of information. Ev also enjoyed "dabbling" (with remarkable success) on the stock exchange, researching ethical, bio-medical and technology stocks of promise.

In 1963, an English entomologist supplied a reference for Ev when he sought to join the CSIRO. This stated that "Britton was personally very agreeable and even-tempered, he is quiet and very rarely talks about himself. He is one of the few people I have known who always maintains very good relations with all those with whom he comes into contact". Another stated he was "gifted with the temperament of a true naturalist – a studious nature and most gentlemanly in bearing". Everyone who ever had contact with Ev would agree wholeheartedly with these sentiments. This was certainly the man we all knew and respected.

Among his papers, Ev kept a quote that, I believe, would sum up his own view of life. It is by that brilliant British scientist, J.B.S. Haldane. "Now my own suspicion is that the universe is not only queerer than we suppose, but queerer than we *can* suppose. I have read and heard many attempts at a systematic account of it, from materialism and theosophy to the Christian system or that of Kant, and I have always felt that they are much too simple. I suspect that there are more things in heaven and earth than are dreamed of, or can be dreamed of, in any philosophy. That is the reason why I have no philosophy myself, and must be my excuse for dreaming." *Possible Worlds and Other Essays* (1927).

I remember Ev being fond of quoting Haldane's compelling argument for the importance of beetles. On being asked by a group of theologians what could be concluded about the nature of the Creator from a study of his creation, Haldane is said to have answered, "An inordinate fondness for Beetles". Of the one million or so species of life, about one-third are beetles. In a quantitative measure of the Creator's affection, the supposed high-point (and end-point?) of creation, *Homo sapiens,* is badly outnumbered.

Everard Baldwin Britton passed away on 18 January 2004 at the age of 91 years following a severe respiratory infection. He is survived by his wife, Joyce, his two daughters and their families. This gentle man with such an enquiring mind will be much missed by all his family and friends. In his quiet, determined way he made a substantial contribution to our overall knowledge of Australian insects, the critical importance of which is sadly little understood by so many in these economic rationalist days.

Murray S. UPTON

PRESIDENTIAL NEWS

After the Christmas and New Year break we are now into the year in which the International Congress of Entomology will be held in Brisbane 15-21 August 2004. This is a great opportunity for all people working with insects in Australia to meet world leaders in their field and learn more about the amazing variety of research that is carried out making use of insects. Insects are estimated to make up 75% of all animal species, and are very important economically, both directly and indirectly and for their role in the environment. Many of us started our observations on insects through natural history with a healthy interest in the world around us, and the Society still welcomes members who work in this way. Insects are important models for describing gene discovery and function using new biotechnology tools. They are important tools for teaching. All this and much more you will be able to experience by attending an International Congress on your doorstep.

Details of the program and the timetable can be found on the web: <www.ice2004.org>. You can register online. Now is the time to be getting in your registration and preparing abstracts for submission. Early registration is due by 1 February 2004 and standard registration by 1 July 2004. Abstracts for papers or posters must be submitted by 31 March 2004, but papers will not be included in the program unless the author has paid their registration by 1 July 2004. The congress has only been held in the southern hemisphere twice before. It was held in Canberra, Australia 32 years ago, and thus it is unlikely that most of us will get another chance to attend a Congress in Australia during our working lives. Hopefully managers and supervisors of students will do everything they can to get their staff and students to Brisbane. At the AGM of the American Entomological Society in Cincinnatti last year several professors mentioned that they hoped to bring groups of their students to ICE2004 in Australia. A large number of Australians led by Myron Zalucki as Congress Chair and John Le Salle as Program Chair are organising a very exciting program of sections, symposia, social activities and satellite meetings. The Australian Entomological Society is official host of the Congress and is fully committed to making sure that the rest of the world sees the strength of entomological research in Australia. A successful Congress will raise the profile of Entomology in Australia, and will improve the ability of entomologists working in and trained in Australia to obtain good jobs around the world. Don't be someone who afterwards regrets that they did not go when they had the opportunity. Have a look at the website now. I hope to see as many of you as possible in Brisbane in August.

James RIDSDILL-SMITH

TREASURY NOTES

The Society now has Full, Retired, Joint, Student and Overseas membership types, each of whom may take the newsletter in paper or electronic format and the journal in paper or electronic format. Members paying before the end of December receive a rebate. That is 80 combinations and unfortunately I didn't change one set of templates when preparing the subscription renewal invoices so you might have been called a Full Member when you are not. In every case the subscription rate was correct. As Treasurer, I am sorry for any confusion, but I thank those who were not sarcastic.

A number of changes were made to the Constitution at the Hobart AGM. In addition to a number of minor changes to definitions and wording, these included:

1. The financial year finishes on 30 June but the subscription year and the journal year remain as calendar years.
2. Members whose subscriptions are more than six months in arrears will no longer receive publications until they have rectified this (this was previously 12 months).
3. A grievance resolution procedure is now included.

4. Chief Editor, Technical Editors, News Bulletin Editor and Business Manager are appointed by Council not elected (these are not governance positions).
5. Chief Editor, News Bulletin Editor and Business Manager are not members of the Executive but are members of Council.
6. The period for calling nominations for Officers and Councillors has been reduced to 40 days (previously 80).
7. Council may now meet by teleconference.
Copies of the new Constitution and By-Laws can be obtained in pdf or hard copy from the Secretary.

Ian ENDERSBY

On Drawing a Centipede – observations of a student artist

When it was presented to me by a friend from the Blue Mountains, the little black centipede, almost 2 cm long, was recently dead. All its legs were intact, and it appeared to have long antennae at both ends of its body. I knew nothing about it, but was intrigued by what the microscope revealed: every joint on every long leg was armed with murderously angled spines; its head, too, was armed with weaponry – a pair of jointed and spiked claws and bristled maxillae.
A visit to the Australian Museum's Greg Edgecombe identified the creature as a female centipede, or to be more technical, a species of scutigeromorph chilopod, in the genus *Allothereua*,– not an insect at all. I learnt that the remarkable slits in the middle of the shield-like tergites covering the body were actually spiracles, the claws at the front were poison fangs, and what I had taken for rear antennae were really the creature's fifteenth and final pair of legs.
Ah, the legs! By this time random legs were dropping off. A live scutigeromorph will drop a leg or two when threatened, and will grow replacements; in death, the legs will just part company from the body at the slightest touch of an insect pin. The challenge was to keep them in sequence while they were measured and drawn. The shortest one was 10mm and the longest 23.32 mm, considerably longer than the antennae or the insect's body. In making decisions about how to draw the creature, those extremely long legs and antennae posed a great challenge: their length could take up so much of the paper space that features of the head and body could be obscured. The topography of the body, too, was complex, with surface features such as pitting, spines and setae on the head, and the rounded and flanged plates covering the body. Also I wanted to animate the drawing so that this creature's alert predatory nature was conveyed, and the capturing potential of its netlike thirty legs was highlighted.
Thus I decided to abandon symmetry and shading altogether, to twist the body slightly, and to depict only its most significant functional parts – using brush and razorblade with black ink on scraperboard. From start to finish it was a long and absorbing assignment, opening up the wonder and complexity of the insect world.

Kath WHITE

[Kath White is an Honours student in the B.Design (Wildlife Illustration) course at Newcastle University, NSW. Previous to this she taught English and Adult Literacy in Australia and Nepal.]

Lord Howe Island Stick Insect

Members of the Linnean Society of NSW recently had the pleasure of being addressed by Margaret Humphrey concerning her recent expedition to Ball's Pyramid to locate *Dryococelus australis* – the curiously stout phasmid that used to be abundant on Lord Howe Island. A shipwreck in 1918 on the reef off LHI apparently resulted in the introduction of rats. Within two years populations of this common and stoutly built insect, much appreciated by the islanders as fish bait, had declined, and it soon disappeared from the main island. During the 1960s, an expedition to Ball's Pyramid, the largest volcanic spire in the world and sitting quite isolated 25km SE of Lord Howe Island, found a few dead specimens of the phasmid in birds nests. On three recent visits to this rocky outcrop, small numbers of both sexes were found on strongly growing specimens of *Melaleuca howiana* where there was sufficient water seepage. Permission was granted to the most recent expedition to collect two pairs, and both produced numbers of eggs from which it is hoped good breeding colonies can be established. Re-introduction to Lord Howe Island itself is, however, a matter for the future and depends on the eradication of the well-established rats. Beauty lies in the eye of the beholder, and only a dedicated stick-insect enthusiast could consider this heavily bodied creature attractive, but it is good news that one more life-form on our much depleted planet has been snatched back from extinction.

LAM

Student notes from Hobart

Student participation at this year's combined conference continued the growing trend experienced in recent years with attendance records blasting

past the 70 mark – the sky truly is the limit. Student poster and oral presentations were very highly regarded by all in attendance, and associated awards were evenly spread across institutions. Likewise, feedback from students regarding the conference as a whole was very positive ensuring continued post-graduate attendance in the future. Highlights included the Phil Carne prize presentation by **Michelle Schiffer** and the Wednesday field trip, especially the Tahune airwalk and the delectable banana muffins. Recommendations for upcoming conferences include "improved catering for vegetarians" and "more drinking games.... b-gerk!", whatever that means. Many and varied social activities culminated in the student dinner held at the local Turkish restaurant in North Hobart. Hazy recollections of the night's proceedings include loads of happy faces, sumptuous banquet-style food enjoyed in authentic surroundings, and a grand selection of Australian wines including delicious home made varieties (thanks Arthur). Rumours abound regarding a splinter group, cheap Mexican margaritas and a few morning headaches – or so we're told. On behalf of all students in attendance, thanks must go to the organizing committee for catering to our 'special needs', especially to those involved in assessing and rewarding student presentations. Your efforts are greatly appreciated.

Andrew DAVIES

Australia and the ESA Meetings, Ohio

Australians were prominent at the 51st Annual Meeting of Entomological Society of America held in Cincinnati, Ohio, in late October. At the opening ceremony, **James Ridsdill-Smith**, as President of the AES, and **Myron Zalucki**, as Chair of the Brisbane International Congress of Entomology, sat on the stage amongst the dignitaries and awardees. Myron, whose distinctive garb and Akubra stood out amongst the besuited (and almost female-free) grey-hairs, remained highly visible throughout the remainder of the meeting doing great business at the well-located ICE promotion desk.

Joanne Daly and James Ridsdill-Smith also served stints at the desk, until it seemed every one of the 2200 attenders had at least one micro-koala and a handful of promotional pamphlets. Joanne departed a little early to visit **Ev Schlinger** in Santa Barbara, thus leaving James as a wallflower at the dance following the Entomological Foundation dinner.

So to the science, and there was plenty, often of a staggeringly high quality, not least from the students. I can report only on section A (systematics, morphology and evolution) symposia and sessions, and two co-proposed by our section that were treated as Program symposia. The latter two commemorated recently deceased entomologists, but in no way were they necrologues. *Life on a little-known planet* was a tribute to Howard Ensign Evans and *Populations, species and phylogenies - evolution in insect-plant systems* was in memory of **Tom Wood**. **Howard Evans** spent much time studying wasps in Australia, as has **Bob Matthews** (University of Georgia), who co-organised the tribute. Bob used his presentation to show the wonderful central and northern Australian habitats in which he sought and found the spectacular *Abispa splendida*. **Darryl Gwynne** (University of Toronto) showed the advantages of having New Zealand in-laws with a neat study of the sexual behavior of ground wetas in the backyard. The **Tom Wood** commemoration was packed all day, with some big names (including **Peter Price**, **Doug Futuyma** and **Brian Farrell**) as sporadic lures, and topical presentations throughout. The excellence of this symposium and its organisation kept me there all day despite a parallel symposium on the *Phylogeny of the Cucujoidea* that included presentations by **Rich Leschen** (Landcare, NZ) and **Adam Slipinski** (ANIC, Canberra). These two symposia were adjacent and both had substantial overflow for most of the day - a sign of the popularity of both topics.

Section A of ESA also organised the symposium *Phylogenomics - Arthropod Systematics in the Information Age*. Despite the topic titles and currency, the attendance was less than expected. The recurrent 10 second Powerpoint slide exposure of some weird resultant trees from neo-analyses may explain the paucity of more traditional systematists. Attendance never attained that of an Entomological Collections Network (ECN) meeting (110 people for the Saturday and Sunday morning pre-ESA). ECN concerned methods and malpractice in molecular vouchering, digital imaging and online publishing, and the issue of orphaned collections. Usage of long-familiar techniques to Australian systematists, namely Automontage, DELTA and Lucid, is growing albeit slowly in what can seem a more conservative clientelle: Automontage sponsored the ECN meeting and Saturday evening reception – a good move. Back at *Phylogenomics*, **Steven Cameron** (ex-UQ Parasitology, now a gentile amongst mormons at Provo) contributed a laidback overview of the astonishing pace of sequencing whole insect mitochondrial genomes (his group have, in c.1 year, contributed half the 25 now available). **David Yeates** got a mention as a collabora-

The Hobart Conference was not all scientific meetings.
The large number of students attending found many opportunities to exchange views on a diverse range of topics - from appropriate methods of invertebrate conservation to appropriate ways of holding a bottle.

tor with **Brian Wiegmann**, and **Chris Lambkin** for her expertise in ILD testing.

The 10 minute presentations in ESA Section A included two presentations on chrysomelids that acknowledged (and largely supported) **Chris Reid's** morphological phylogenies – but neither was presented by **Brian Farrell**. **Penny Gullan** left her teaching at Davis in the capable hands of **Kendi Davies** and **Brett Melbourne** (ex ANU and both doing post-docs at UC Davis) so the Californian students didn't miss the Aussie accent. Penny presented work undertaken in the service of US Agriculture to sort out a new invasive species of *Ferrisia* (a mealybug) damaging pistachios and almonds in California. Molecular studies of the genus uncovered cryptic species, allowed a type allocation and elucidated the position of *Ferrisia* in the bigger scheme of scaly things.

Pete Cranston pretended to be busy as incoming chair of section A for 2004, but somehow got to nearly all the scientific sessions and undoubtedly missed some important administrative meetings. The central function of the chair involves the program for the next (52nd) meeting to be held in Salt Lake City in November 2004. This is fun, and at press we have a proposal for a Program (across sections) celebration of Dick Vane-Wright's career, looking backwards but mostly forwards across his diverse contributions to entomology, especially lepidoptery, entomophagy and jazzophilia, in the year of his retirement. **Jack Longino** (Evergreen College) will host a review of the Arthropods of La Selva (ALAS) project in Costa Rica which was an erstwhile model proposed for how we (Australians) could/should be doing biodiversity studies – good design, analysis, taxonomy and delivery, with very limited RBA (Rapid Biological Assessment). Finally, we hope to learn much about what is going on in bee evolution with a session co-ordinated by **Bryan Danforth**. The 2004 meeting should be fun, and so come if you have anything left after Brisbane. See you there.

EXECUTIVE REPORTS

AES Executive Meeting #414

22nd September 2003

A letter was sent to the Senior Adviser to the Governor-General inviting His Excellency Major General Michael Jeffery AC CVO MC, Governor-General of the Commonwealth of Australia, to be a patron of the AES.

Expressions of interest have been sought from AES members to attend FASTS' Science meets Parliament Day.

Peter Allen, John Jennings and Andy Austin were thanked for their work on the AES Strategic Planning questionnaire that is to be trialled by Council prior to 2003 AGM and then sent to members.

Sixty members were unfinancial at 20th September 2003.

New member: Martin Landolt, PhD candidate at Murdoch University, WA, supervised by Mike Calver and Giles Hardy, working on the insect fauna of the tuart (*Eucalyptus gomphocephala*), with emphasis on the cerambycid species and their parasitoids (wasps). Other interests include plant pathology, insect pest and insect-fungus interactions (fungal pathogens on grasses, aphids, psyllids, cicadellids and other smaller plant pests) (proposed: Janet Farr, seconded: Mike Calver).

AES Executive Meeting #415

31st October 2003

Regional Councillors have been supplied with the 2004 AES membership form and asked to recruit new members.

A. Clarke and A. Simmons have been selected to represent AES at FASTS' Science meets Parliament Day.

Bronwyn Walsh will be the local organiser for events surrounding 35th AES AGM in Brisbane 2004.

Letter received from the Senior Adviser to the Governor-General advising that His Excellency Major General Michael Jeffery AC CVO MC, Governor-General of the Commonwealth of Australia is willing to be a patron of the AES

Prof Al-Khalifa, Saudi Arabia, is interested in ticks, tick-borne diseases and red palm weevil and is planning sabbatical leave in Australia. He would like to hear from members with a similar interest (mkhalifa@ksu.edu.sa).

FASTS is to employ new executive director following resignation of Toss Gascoigne. Mr Gascoigne is to take up a position as inaugural director of CHASS, the Council for the Humanities, Arts and Social Sciences.

Strategic planning questionnaire responses will be analysed in February

New members: Dr Joanne Holloway, Research Entomologist, NSW Agriculture, Pine Gully Road, Wagga Wagga NSW 2650 (proposed: B. Wallbank, seconded: A. Burdett).

Ms Michele Schiffer, CESAR La Trobe University, PhD candidate working on the implications of outbreeding depression and variation in the genetic architecture of life history traits, focusing primarily on the sibling species, *Drosophila serrata* and *D.*

birchii (proposed: G. Maynard, seconded: K. Pullen).
Dr Peter Neville, AQIS, Victoria. Peter has a background in using the biomonitoring approach to examine changes in ecosystem function. His research activities have included documenting and describing the impact of shelterbelts on farmland with respect to invertebrate biodiversity and ecosystem sustainability (proposed: G. Maynard, seconded: K. Pullen).
Mr Curtis Ewing, PhD student, Department of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853-0901 USA. Interests: Systematics and ecology of the Hawaiian endemic Nitidulidae, and their relationships to the nitidulid subfamily Cillaeinae. (proposed J. Lawrence, seconded: T. Weir).

AES Executive Meeting #416

24th November 2003

In the FASTS newsletter of October 2003 was a report on Science meets Parliament. It included photographs of AES members Kirsti Abbott, Nigel Andrew (named as a young scientist) and Aaron Simmons (spotted in crowd photo).
Letter received from the International Biology Olympiad (IBO2004 - Brisbane 11-17 July), an annual event that travels the world attracting the world's best secondary school biology students. The IBO is conducted under the auspices of UNESCO and aims to promote the advanced study of biology globally. For further information visit ibo2004.org.au
Glynn Maynard has been appointed as Promotions Officer and asked to join Council for the next 12 months, particularly to coordinate the promotion of the AES in our booth at ICE.
An arrears management plan is to be prepared.
Updated AES Constitution has been sent to Registrar-General and awaits approval.
The executive is to meet to discuss marketing of the Journal and the AES with Lisa de Kleyne and Suneel Jethani of Blackwell Publishing Asia.
New members: Ms Catherine Paull, PhD candidate in the School of Earth and Environmental Sciences, Environmental Biology, at the University of Adelaide, SA. Interests: Applied entomology - conservation/biological control (proposed: J. Jennings, seconded: K. Henry).
Dr Derek Russell, Adjunct Professor, CESAR, on secondment from the Natural Resources Institute, University of Greenwich, UK. Research Interests: Integrated pest management in small-producer cotton systems. Sustainability of transgenic crop use for developing country farmers. Insecticide resistance management in cotton pests, esp. *Helicoverpa armigera*, the cotton bollworm (proposed: A. Hoffmann, seconded: N. Endersby)
Ms Ann Gaffney, PhD student working on insect mediated pollination in hybrid carrot seed crops at University of Tasmania. Other interests: fruit flies and wild tobacco fly (*Bactrocera cacumina*) (proposed: G. Allen, seconded: N. Endersby).
Mr Brian Oliver, Tasmania, Project consultant - Technology (proposed: G. Allen, seconded: N. Endersby).
Ms Ingrid Rencken, PhD student at University of New England working on the role of native vegetation in the ecology of beneficial insects in cotton production systems (proposed: J. Stanley, seconded A. Del Socorro).

MACKERRAS MEDAL

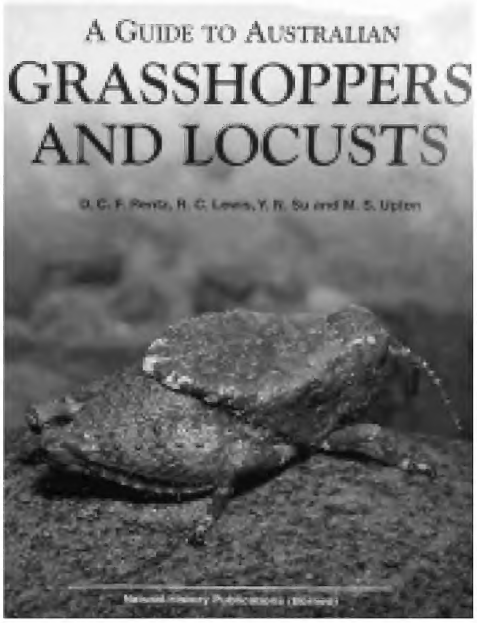
The Mackerras Medal is the Australian Entomological Society's most prestigious award and is presented every two years to a member under 50 years of age who has demonstrated excellence in entomology. The award is named in honour of Dr Ian Mackerras, the Society's first President and an entomologist who embodied the excellence in entomological pursuits that the award recognises.
The executive is calling for nominations for 2004. A candidate must be nominated by not fewer than two financial members of the Society. Nominations must include candidate's name and date of birth, academic distinctions, relevant appointments and membership of societies, a list of the candidate's more important publications and a statement of not more than 500 words explaining why the award should be made. Only financial members of the Society who will be under the age of fifty (50) years at 17th August 2004 shall be eligible for nomination. The closing date for receipt of nominations by the Secretary is 17th May 2004.

AUSTRALASIAN SCIENCE MAGAZINE

Professor Snow Barlow, the new President of FASTS and Head of the School of Agriculture & Food Systems, University of Melbourne, was quoted recently in ASM as stating that the reckless squandering of talent hurts the knowledge economy of Australia, and that the government must dramatically improve career paths for young scientists. Securing realistic careers for scientists after graduation is the most challenging and unaddressed issue for Australia's labour force in science, engineering and technology (SET). Currently, markets for jobs in universities and CSIRO are stagnant, forcing postdoctoral scientists into accepting a succession of contracts for only 1-2 years. Whilst other OECD nations move more strongly towards

knowledge economies, the impact of Australian science is declining. The government's Federation Fellowships were launched to attract our best scientists home, but has evolved into a program seeking to stem the flow of our talent out of Australia as well. This year, the scheme did not even fill its quota of 25 fellowships. Further, some of the eight overseas scientists offered fellowships are having reservations about accepting them. The provision of career paths for highly trained postdoctoral scientists, in whom the nation has invested heavily, requires urgent attention. Otherwise, they may be lost to science at great personal cost to themselves and the nation.

BOOK NOTICE



A Guide to Australian Grasshoppers and Locusts by David Rentz, Bob Lewis, You Ning Su and Murray Upton. Natural History Publications (Borneo).

A copy of this outstanding new book by the Rentz team of orthopterists arrived on my desk after the current issue of *Myrmecia* had been prepared for publication. A full review will be prepared and submitted to the Society's Chief Editor for a future issue of *AJE*, but the volume is sufficiently important for the attention of our members to be drawn to it as soon as possible. Totalling 418 pages, of which 95% are in full colour, the aim of the authors is to facilitate the identification of Australian Acrididae and Pyrgomorphidae, using nothing more than a 10X hand lens. Although only a few pyrgomorphs are found in Australia, including that magnificent northern insect, Leichhardt's Grasshopper, about 750 acridid species are now recorded from this continent – and this volume provides colour photographs to help identify almost half of these species. Each species is given a full page with a standardised set of colour pictures, including habitus and details of head, wings, legs, prosternal process and genitalia, together with a distribution map. Moreover, a section is also included with photographs of nymphs of most species. There is much more – but I suggest that you look for yourselves.

The volume will be available through good bookshops at a cost of $A129.95. However, it is also available by mail order at a special pre-publication price of $A99.95 from the Green Book Company, Victoria.

Contact details: email - sales@greenbook.com.au; Tel 03 9427 8866; Fax 03 9427 9066. Outside Melbourne freecall 1800 646 533.

If you contact this number, make sure that you mention that you are a Member of the Australian Entomological Society to receive this outstanding pre-publication price - it's a great bargain!

LAM

REGIONAL NEWS

AUSTRALIAN CAPITAL TERRITORY

Australian National Insect Collection

The ANIC collection halls are undergoing structural reinforcement designed to prevent damage to the collection in the (rare) event of an earthquake. The disruption will probably see some staff disappearing into the field or taking work home.

Adam Slipinski took the long drive to North Queensland to collect adult and immature Coccinellidae. The monotony of the trip was relieved by his taking his family along.

The dipterists, **David Yeates**, **Chris Lambkin** and **Jacquie Recsei**—accompanied by **Rolf Oberprieler** and **Andreas Zwick**—drove to WA in November to collect in coastal national parks from Geraldton to Esperance. The fly-ers were mainly after therevids and bombyliids. Zamiaphile Rolf was looking for weevils in the western macrozamias, and gonipterine weevils to help with his revision of the group. Andreas targeted anthelid and lasiocampid moths. David was no sooner back than he departed again for Brisbane to work with **Anthony Clarke** on an article for the *Annual Review of Entomology*.

Chris went to Kosciuszko National Park with **Noel Starick** over the Christmas-New Year period to replicate the sampling done during the Biodiversity Blitz in previous years. She returned with a shiner after cushioning a fall with her face—apparently her hands were occupied with nets and other paraphernalia!

Alice Wells and **Laurence Mound** followed their now well-established tradition of celebrating Christmas Day by collecting an un-described thrips. This one, a new genus, was breeding in the male cones of *Podocarpus* at the top of Mt Gingera, the highest peak in ACT. It was found after a photographic session targeting the millions of bogong moths in the caves near the peak – and the equally traditional lunch of a carrot and cold water.

In Hemiptera, ANIC holdings of Psylloidea have benefited enormously from a visit by **David** and **Jean Hollis** of the UK. The husband and wife team reorganised the collections (slides and pinned material) and relabelled all cabinets. David has been writing a book on the Australian psylloids, to be published by ABRS. This will include a fully illustrated key to genera, checklist and bibliography, and an extensive introduction to these insects' biology and host relationships.

Mike Hodda's world checklist of the nematode order Aphelenchida is now on the Web at <http://www.ento.csiro.au/science/nematodes/checklist_dec2003.rtf>. The document is notable for its numerous records of insect hosts. Mike's Australian Aphelenchida checklist is also now available through the ABSR Australian Faunal Directory website.

In the Lepidoptera section, one visitor has departed and another has just arrived. **Gerhard Tarmann** of the Natural History Museum, Innsbruck, Austria, was a guest for 5 weeks to complete a manuscript on the Australian Zygaenidae. The initial stages of this work were funded by ABRS. **Felix Sperling**, of the University of Alberta, Canada, has arrived to carry out molecular work on tortricid phylogeny with **Marianne Horak**, **Frances FitzGibbon** and **Diana Hartley**, and revise a tortricid genus.

Kim PULLEN

NEW SOUTH WALES

CERIT, University of NSW

In the six months since our last Myrmecia update, CERIT has once again held its annual Industry Briefing Symposium, this year entitled "Timber Pest Management and Training in Australia – 2003". Once again we used the excellent facilities at the University of New South Wales Kensington Campus, Biomedical Theatres. The October Event was a great success with around 110 attendees who heard from industry leaders, speaking on topics related to risk management, best practice, latest technologies and training within the timber pest management industry. Our Keynote speaker was **Ron DeGroot** (DeGroot Technical Services) whose presentation entitled "PestCert, A Comprehensive Accreditation Scheme for the Australian Urban and Commercial Pest Management Industry" sparked some lively debate as this issue is set to initiate some major changes in the pest management industry as a whole.

If you are interested in finding out more about CERIT's industry briefing symposia you can phone us on 02 9385 0344 or email cerit@unsw.edu.au.

Chris Orton has been involved with a few committees this last six months, principally through his on-going work with the Property Services Industry Training Advisory Body NSW (PSITAB NSW) - Pest Management Industry Sector Committee (PMISC). He also attended the AEPMA annual national conference (where he facilitated a workshop session) and General Meeting. Also he gave a presentation on CPD quality at a Working Party meeting at the conference. Chris also attended a half-day

workshop on termite management hosted by Bayer Environmental Science.
Visitors to CERIT recently have included: Roger Sargent and Andrew Smith,Schering-Plough Australia; Brian Chung, Botanical Resources; Bob Ryan, BOC Gases and Perry Forsyth, Timber Development Association .
We welcomed staff member, Patrick, back from his extended 9 week holiday overseas where he visited a total of 15 countries including the UK, France, Italy, Germany, Finland, Estonia, Switzerland and Spain! He is still collating his approximately 3,500 digital images.

Merilyn BAKER

University of Sydney, Fruit Fly Research Centre

In August 2003 **Alan Clift** represented the Fruit Fly Research Centre at a meeting of consultants organized by the Joint International Atomic Energy Agency (IAEA) and FAO, Vienna, Austria, to discuss the criteria for eradication of insects, with special reference to tsetse flies. The basic question they wanted answered was how long do you keep monitoring after an eradication campaign to be reasonably certain the organism concerned has been eradicated. There were three other external consultants involved, a tsetse expert (**John Hargrove**), a theoretical population modeler (**Hugh Barclay**) and a veterinary expert. After the meeting, the group was invited to write a chapter for an IAEA/FAO book on eradication and the sterile insect technique. **Alan Clift** and **Alfie Meats** collaborated to provide the Fruit Fly Research Centre's contribution, which was submitted during November 2003.

Alan CLIFT

Orange Agricultural Institute

The Entomologists of Orange Annual Christmas Lunch was again held at the Metropolitan Hotel Bistro in December. This year we had a large group of postgraduate students from the Uni and several part-time members of OAI's pest monitoring and databasing grouips to swell the numbers, even though some of the other regulars were not available.
It's also been a bumper year for cicadas in Orange with greengrocers still going in mid January (day and night) and the usual run of requests from the local press for comments from the local entomologists. Although the drought has not really broken, enough rain has fallen to convince the cicadas that it was worth having a reproductive run after a couple of dry years. **Birgit Schuerrer** has returned to Austria briefly to spend a couple of weeks working with **Werner Holzinger** in Graz on the higher classification of the Cixiidae and to examine primary types of Australian species. When she returns to Orange in mid January (which will require her to adjust to a change in daily temperature of around 40degreesC) she will be Mrs Holger Loecker. **Danuta Knihinicki** has taken maternity leave for several months with her first child, Alexander, born on Monday 12th January. She plans to maintain active contact with her mite work from home.

University of Sydney, FRM, Orange

Leigh Pilkington has successfully completed his PhD, graduating just before Christmas. His thesis examined Australian lucerne yellows phytoplasma (ALuY), its characterisation, vectors and management options. His project was cosupervised by **Geoff Gurr** (Univ of Sydney), **Murray Fletcher** and **Alex Nikandrow** (NSW Agriculture) and **Karen Gibb** (NTU). A similarly multidisciplinary team is supervising another entomological project in the faculty being undertaken by **David Chang**. David is investigating the physical and chemical properties of silk produced by the eucalypt feeding leafhopper *Kahaono montana*. The supervising team includes Geoff Gurr (Univ of Sydney, Orange), **Bob Gilbert** (University of Sydney Key Centre for Polymer Colloids), Murray Fletcher (NSW Agriculture) and **Debbie Kent** (NSW State Forests). **Mahmuda Begum** is nearing completion of her MPhil project on habitat manipulation for parasitoids of the light brown apple moth (*Epiphyas postvittana*). **John Macdonald** appears to have disappeared from Orange and was recently reported to be living in Sydney.

Aaron SIMMONS

NORTHERN TERRITORY

NAQS

After attending a symposium on bluetongue disease in Sicily in October, **Glenn Bellis** took part in surveys of Darwin's rural area, Bathurst Island and Kakadu National Park, the latter with East Timorese Entomologist **Americo Brito**. In between these trips, Americo and Glenn spent a week in Dili looking at the hosts of fruit flies and establishing other projects with University students there. During the Bathurst Island trip, Glenn followed up on **Graham Brown's** discovery of a palm-feeding psylloid that had aroused **David Hollis'** interest,

Entomologists of Orange celebrate at their annual Christmas lunch

When an entomologist marries an arachnologist you can expect AES members to swarm:
L to R: back row: Jonathan Majer, Aaron Gove, Karl Brennan, Peter Langlands, Murray Fletcher.
Front row: Rebecca Graham, Maze Majer, Melinda Brennan (nee Moir), Julianne Waldock,
Lilliane Gerhardt, Nihara Gunawardene.

and nabbed a long series of adults for David's account of the genera of Australia's Psylloidea. Luckily, the specimens arrived a few days before David had to return to the UK. Glenn also met up with **Peter Ridland** to talk leafminers during Peter's brief visit to Darwin.

Department of Business, Industry and Resource Development, Entomology Section

The Entomology Section has been going through a long awaited restructure. Two positions were filled: **Deanna Chin** was appointed to Extension Entomologist and **Michael Neal** was promoted to Senior Technical Officer.

Brian Thistleton, **Michael** and **Graham Young** (formerly with the Section) of the Termite Group won the CEO Employee Award for 2003 for outstanding contribution to the Department and Industry. Significant progress has been made in the last few years on the development of termite management and control in the Territory, particularly *Mastotermes darwiniensis*.

When they're not receiving awards, Brian and Michael are happy to shed their long trousers and get back into their field attire. Their chemigation trials are going well on three grapevine properties in Ti Tree which are aimed at controlling *Microcerotermes* and *Mastotermes*. Apart from their work on termites, Brian and Michael are also carrying out research on ornamentals and Asian vegetables. They have called on the help of **Heather Wallace** to rear laboratory colonies of caterpillars from ornamental gingers for life cycle studies. Heather is also continuing to assist **Stuart Smith** (Plant Health Manager) with record keeping on the pilot project on the sterile male releases of the fruit fly, *Bactrocera tryoni* in Alice Springs.

While on holidays in Brisbane, **Megan Connolly** visited **Kay Montgomery** at the RIFA Control Centre in Wacol. In November, **Megan** accompanied **Deanna** to visit the Wildman River Kakadu Plum Farm to present results that were collated from the previous season's monitoring and to discuss monitoring procedures for recording pests and natural enemies during the next flowering and fruiting periods. **Deanna** and **Haidee Brown** are currently monitoring rambutan orchards and provided growers with a formatted spreadsheet so they can record weekly monitoring sessions and use this information to generate graphs on the main pests and beneficials. **Deanna** and **Haidee** have also just completed trials on the observations of *Campylomma* damage in mangoes and the control of two spotted mites with predatory mites in carambolas.

Lanni Zhang has been temporarily appointed to Quarantine Entomologist and has been identifying specimens intercepted by quarantine officers at the airport and seaports. **Graham Brown** has continued to provide specialist advice on these identifications although he has been seconded to work on the Taxa Tree database for AQIS. **Graham** and **Heather** revisited the Douglas Daly in January to collect and study an undescribed genus of grass-feeding sawfly. The larvae of this species superficially resemble armyworms in appearance and behaviour.

Department of Health and Community Services, Medical Entomology Branch

Freshwater mosquito numbers are on the increase in the Top End of the NT as a result of the recent start to the wet, and salt marsh mosquitoes are on the decrease. Most of the helicopter Bti insecticide operations are over, with methoprene pellets in place for some particularly troublesome spots.

The branch restructure has now been completed with the professional positions now well into their new duties.

Nina Kurucz, as operations manager, has been heavily into preparing branch and regional annual reports, as well as the day to day monitoring and control operations, with great efforts by technical officers **Jane Carter**, **Leah Stratford** and **Jennifer Grigg**. The control of salt marsh mosquitoes around Darwin has gone very well this year.

Gisi Lamche, as exotic vector surveillance officer, is writing up reports on various receptacle monitoring surveys for exotic mosquitoes in Katherine and Nhulunbuy, including one that gave the all clear for the recent unannounced arrival of a refugee vessel landing on Melville Island. A new pamphlet has been distributed to many port premises in Darwin outlining the appearance and risks of exotic dengue mosquitoes.

Allan Warchot, the development planning and vector control officer, and **Peter Whelan**, the branch head, have finished the detailed biting insect report for the new gas plant at Wickham Point in Darwin Harbour. Alan is heavily involved in a number of other development projects including a number of new prawn farms near mangrove areas. He has also been conducting surveys with Peter Whelan along the new rail corridor, which has created a number of new mosquito breeding habitats close to tidal areas. Peter has also been involved with investigations and reports of a case of scrub typhus in a new area outside the

recognised risk area of Litchfield Park, and cases of leishmaniasis in red kangaroos near Darwin.

CSIRO Sustainable Ecosystems

Alan Andersen and **Tracy Dawes-Gromadzki** have been busy developing and implementing long-term sampling regimes for monitoring arthropod biodiversity as part of the new Territory Wildlife Park fire project. This project is a collaboration between CSIRO, the Northern Territory Government and Charles Darwin University, as part of the Bushfire Cooperative Research Centre. It involves the development of an integrated research and education facility at the Territory Wildlife Park at Berry Springs, south of Darwin. The project features an experiment consisting of 18 hectare-sized plots to which different fire regimes (varying fire frequency and seasonal timing) will be applied and various parameters then measured. Invertebrates have traditionally been neglected in fire research despite their high diversity and ecological importance. In this project invertebrates will be a key focus and a new invertebrate ecologist will be appointed. Pre-manipulation sampling of arthropods using pitfall traps was completed in November. Baits (toilet rolls and wooden stakes) used to sample wood-feeding termites were also installed in November 2003 and sampled 5 weeks later, with initial results indicating high levels of termite activity at the start of the wet season. Tracy also travelled to Townsville in November to visit collegues and discuss future project developments in relation to soil macroinvertebrates and soil function. This work will particularly focus on the importance of soil macroinvertebrates to soil water relations and employ the use of stable isotope analyses. In November Tracy also hosted a brief visit by Japanese researchers **Shigeharu Moriya** and **Tetsushi Inoue** who came to Darwin to collect samples of *Mastotermes darwiniensis*. Tracy also spent a day with a TV crew from the ABC's Asia-Pacific TV enlightening them about the wonderful world of termites.

Ben Hoffmann has conducted a pest ant survey of the Tiwi Islands that aimed to document what species were where, their status, and recommendations for management. This proceeded to the beginnings of an eradication campaign for the Tropical Fire ant, and the African big headed ant. Ben has also completed the sorting of ant specimens from a DIPE study into the ecological impacts of digeridoo harvesting around the Katherine region.

Tracy DAWES-GROMADZKI

QUEENSLAND – NORTH

QDPI – Mareeba

Ross Storey reports that **Richard Mankin** of the USDA Gainesville Florida presented a seminar at the QDPI Mareeba entitled 'The Mating Systems of Fruit Fly and Mosquito Pests' in which he discussed sounds used in fruit fly mating behaviour. The well-attended seminar's attendees included **Scott Ritchie** who worked with Richard in his days at Gainesville before moving to Cairns with the Tropical Health Unit.

Adam Slipinski spent a week in nQld collecting coccinellids for his studies on the group. Adam found time to visit **Ross Storey** at QDPI and **Judy Grimshaw** and **Donna McLeod** at NAQS Mareeba to examine their respective collections and borrow specimens.

Scott Carroll from the USA visited nQld in search of rhopalid bugs for possible use as biocontrol agents of a weed species.

AQIS – Mareeba

Judy Grimshaw reports that the survey season will commence after the rains in February 2004 with travel by herself, **Louise Hucks and Matthew Weinert** to the northern Gulf country. A plant specimen collected on Gabba Island (Torres Strait) in 1998 while searching for honey bees turned out to be a new species. It has recently been named after **Barbara Waterhouse** as *Croton waterhouseae*. **Kerrie Huxham** reports that target fruit fly detections commenced in December with the detection of *Bactrocera trivialis* on Saibai and Boigu islands. Weekly baitspraying commenced in November and QDPI staff installed the first round of Male annihilation blocks on Saibai, Boigu Dauan and Darnley islands.

James Cook Uni – Cairns

Simon Robson from JCU Cairns, reports that he had an " excellent time" on sabbatical in the US for the last 6 months, working at the Smithsonian Natural History Museum with **Ted Schultz**, the University of Maryland with **Barbara Thorne** (Entomology Dept), with visits to The Ant Room, Museum of Comparative Zoology, Harvard University and **James Traniello** (Boston University).

Scientific Advisory Services – Tully

Richard Piper from Tully reports that he has been kept busy until the recent rains, monitoring spider mites in bananas and performing trial work with new insecticides. He has also been organising a

trade display for ICE next year reporting that an artist has produced a number of exciting paintings of Australian insects which will be for sale at the August 2004 conference. With Richard's permission, we have a preview of a very colourful dragonfly painting here in Myrmecia but reproduced only in black and white of course. The size is 40cm x 40cm and the paintings will be depicted on Richard's website soon.

"Deep in the sunsearched groves a dragonfly hangs, like a blue thread loosened from the sky.." regretably not in monochrome!!

Bureau Of Sugar Experiment Stations - Mackay
Peter Samson reports that BSES, formerly the Bureau of Sugar Experiment Stations, has now become corporatised as BSES Limited, a statutory authority and Bureau no longer. **Peter Samson** (Mackay) and **Peter Allsopp** (Brisbane) of BSES Limited travelled to Jamaica (Montego Bay) in November for the Entomology Workshop of the International Society of Sugar Cane Technologists. Some rum tasting was unavoidable. Peter Samson also squeezed in a visit to Rutgers University at New Brunswick to discuss entomopathogenic nematodes and whitegrub management with **Albrecht Koppenhofer**.

QUEENSLAND – SOUTH

CSIRO Long Pocket – Brisbane
The CSIRO staff at Long Pocket are grouped into four teams, the tropical weeds team led by **Mic Julien**, the managing invasive insects team led by **Paul De Barro**, the semiochemicals team led by **Richard Vickers** and the risk assessment team, led by **Bob Sutherst**. Also based at LPL is the USDA Australian Biological Control Laboratory directed by **John Goolsby**. In January **Gary Fitt** will be relocating to Brisbane. As well as the research teams, there is a site services team led by **Andrew Shields** and the research support group led by **Marjorie Gunasekara**. In total there 36 Entomology staff, students and honoraries.
Tim Heard, **Areli Mira**, **Richard Chan**, and **Gio Fichera** are assessing the suitability of a geometrid, chrysomelid and rhynchitid, for biocontrol of *Mimosa pigra*, all of which have good prospects of joining the previously released agents and putting the icing on the cake of biocontrol of this nasty weed. **Rieks van Klinken** recently moved from Darwin, after three years there, to Long Pocket. He is researching the ecology and integrated management of the woody weeds, Parkinsonia and mesquite and exotic grasses – the later with **Shaun Kolomeitz** a CRC PhD student. Another PhD student, **Dianne Taylor**, is studying non-target impacts of biological control agents in Australia with Tim. The big effort made by the Mexican team on surveying potential agents for Parkinsonia will yield fruit next year with the first agents to be imported into quarantine for further testing. Tim Heard is prioritising these agents and selecting the most promising. Molecular systematics is coming to the rescue with some difficult taxonomic issues being addressed.
Two projects recently went into diapause. The Bellyache bush project closed soon after the first agent, a colourful scutellerid, was released, and the hyptis project was closed with no suitable agents identified for release.
The projects lead by Mic Julien, involving collaboration with the USDA lab in Buenos Aires Argentina and adjacent countries, are surveying for agents for alligator weed in Argentina and adjacent countries and a new project surveying for agents for the submerged weed cabomba began this year in the same region. A post doc, **Shon Schooler**, from US, will join the project next week to study the ecology of these weeds in Australia.
The USDA/CSIRO Australian Biological Control Laboratory conducts research on plants and insects that are native to Australia and/or Southeast Asia and invasive in the USA. Two plants, *Melaleuca quinquenervia*, the broad-leaved paper bark tree; and *Lygodium microphyllum*, Old World climbing fern are native to this region and serious environmental weeds in the Florida Everglades. We have recently exported a stem-galling fly, *Lophodiplosis indentata* to our USDA-Agricultural Research Ser-

vices collaborators in Florida for final host-range testing. Host range testing of the Lygodium mite, *Floracarus perrepae* has been completed and we expect to export this potential biological control agent to Florida in 2004. The members of our project team are: **John Goolsby** (USDA), **Matthew Purcell**, **Tony Wright**, **Jeff Makinson**, **Ryan Zonneveld** and **Dalio Mira**.

Ecological systems tend to be very complex. One method that is very valuable in gaining an understanding of such systems involves building simplified representations of these systems on computers. This approach is called computer modeling and we, the Risk Assessment team (**Bob Sutherst**, **Gunter Maywald**, **Anne Bourne**, **Rick Bottomly**), have applied it to help answer questions in several areas of research. These include pest management (for example, what is the best combination of available control methods to manage a pest in a given location), pest risk assessment (what part of Australia is threatened by a newly introduced pest such as the fire ant) and climate change impacts on pests and beneficials (if global climate change becomes a reality, what new areas are likely to be invaded by a pest).

Writing population dynamics models normally requires some expertise in the use of a computer language such as FORTRAN. To assist ecologists without these skills, we have created tools (CLIMEX and DYMEX) that allow them to construct their own models without the need to program. We also use these tools in our own work, and extend them in areas where there is a need for new or more complex modeling methods (algorithms) to describe the ecological or genetic processes involved. In this role we currently have projects involved with weed population dynamics, weed competition, and the control of malaria.

The Managing Invasive Insects Team consists of **Paul De Barro** and **Marc Coombs** (Whitefly) and the Semiochemicals Team, **Richard Vickers** (Diamondback Moth) with **Shama Khan**, **Andrew White**, **Karryn Waterworth** and **Veronica Brancatini** sharing tasks across the two areas. **Heather Costa** (University of California, Riverside) and **Rosie Rosell** (St Thomas University, Arizona) have joined us for approximately six months (until Jan 2004) to work on bacteria associated with whiteflies. **Brad McNeil** recently joined the group to work on parasitoid/whitefly host attributes as part of a Master Program.

Research on Diamondback moth is currently focussing on combining the attraction of moths to lures (using pheromones) with the spread of pathogens for those moths as an aid in pest management. Current Whitefly research involves quarantine assessment of an exotic parasitoid for control of Silverleaf whitefly in vegetable growing areas of eastern Australia, classification of Australian native whiteflies based on molecular analysis and a re-assessment of the world biotypes of the Silverleaf whitefly. Heather and Rosie are investigating the diversity and co-evolution of endosymbiont bacteria with native Australian whiteflies.

Qut – School Of Natural Resources, Brisbane

David Yeates from CSIRO Entomology, Canberra spent several days at QUT, working and meeting with **Tony Clarke, Amy Carmichael** and **Mark Schutze**. Tony travelled to PNG for an *Oribius* weevil project meeting in December. **Eve White** presented her confirmation seminar for her project on the interactions between native and exotic *Senecio* species as mediated by invertebrates at a local level of scale. The QUT ento group held its inaugural Christmas function in the botanic gardens with pizza and wine enjoyed by all.

Army Malaria Institute – Enoggera, Brisbane

Bob Cooper spent 3 weeks working in the laboratory with our Vietnamese collaborators in Hanoi in November. In December **Nigel Beebe** accompanied him on a visit to the Jiangsu Institute of Parasitic Disease in China to discuss a collaborative project on the malaria vectors in central and northern China. **Cassie Jansen** has been awarded first class honours for her thesis "Susceptibility of *Aedes aegypti* from north Queensland to synthetic pyrethroids" from the Department of Microbiology and Parasitology, University of Queensland. In late August, she attended the MCAA North Queensland conference in Townsville. **Rob Marlow**, a recent graduate from the University of Adelaide Waite Institute, joined the unit in October. **Darryl McGinn** is mixing a variety of consultancies with completing lab and field evaluations of a new synthetic pyrethroid formulation against mosquitoes. **Steve Frances** continues to evaluate repellents in the laboratory, and is currently searching for a field site in Brisbane, which should not be too difficult. In October and November **Andrew van den Hurk** was a regular visitor to AMI. On one occasion he visited with **Scott Ritchie** from THPU, Cairns, who was in Brisbane to enlighten the medical fraternity on the problems associated with arboviruses.

Kerrie HUXHAM,
Jane ROYER
Bronwyn WALSH

University of Queensland

We welcome the arrival of **Sassan Asgari** to take up a lecturing position within the School of Life Sciences, Department of Zoology and Entomology. Sassan will continue to work on host-parasitoid-virus interactions.

There are a number of folk visiting and undertaking entomological research projects within the School. **Scott Carroll** and **Janella Loye** from UC Davis are visiting for the next few months and working on soapberry bug evolution and host relationships with **Hugh Dingle** and **Myron Zalucki**. Scott is on a Fulbright Fellowship. **Jamie Moore** from Edinburgh University is visiting and working on mating in fig wasps. **Yang Yizhong** from Yang Zhou University, Peoples Republic of China, is undertaking work on heliothis movement on cotton plants with **Marie-Louise Johnson (QDPI)** and **Myron Zalucki**. **Molly Hunter** is visiting UQ for 12 months on sabbatical from the Dept Entomology at the University of Arizona. While here she is collaborating on projects on bacterial symbionts of Encarsia with **Scott O'Neill** and **David Merritt**. **Molly Hunter**, **Elizabeth McGraw** and **Scott O'Neill** recently travelled to Tsuchiura in Japan as invited speakers at an NIAS-COE conference on Insect Endosymbionts. While at the meeting a number of new collaborative projects were established with various Japanese researchers. The meeting was very interesting and it was remarkable to see the rapid growth in this research field in recent years within Japan.

We were recently visited by **Roger Hull**, John Innes Centre UK, **Jiang Zhong**, Fudan University, PRC, **Chongguang Pan** and **Haiying Gu** from Shanghai Jiatong University, PRC, for discussions on a continuing project with **Scott O'Neill's** group funded by the McKnight Foundation and examining novel methods to interfere with Rice Stripe Virus transmission by delphacid planthoppers in Southern China. It was quite a sight to see **Roger Hull** dancing through the streets of Brisbane after the World Cup Rugby win.

Travis Glare, Agresearch NZ, recently visited the School to discuss a new collaboration on the manipulation of cane grub symbionts as a potential method to reduce their pest status in sugarcane. **Wolfgang Miller** from the Institute of Medical Biology in Vienna has just arrived on a 2 month visit to the **O'Neill** lab to continue his ongoing collaboration on *Wolbachia* infections of *Drosophila*. **Irene Terry** and **Bob Roemer** (University of Utah) left recently after a successful season working with **Gimme Walter** and some of his students on insect pollination of cycads.

Elizabeth Snow and **Jacinta Hodnett** - congratulations on successfully completing their honours degrees on cycad fauna and cotton bugs, respectively. Congratulations too to **Aaron Stewart** on successfully completing his honours on assays for termite feeding preferences. And to **Sarina Pearce** for her PhD on Spiders in soybean crops in Southeast Queensland. **Sarina** will be working with **Marie-Louise Johnson, Bronwen Cribb, Paul Ebert, Chris Moore (QDPI) and Myron Zalucki** on induced defences in Arabidopsis. **Sarah Armitage** completed her fourth year project on big eyed bug foraging on heliothis and is continuing to work on silking behaviour in heliothis with **Marie-Louise Johnson, Brad Scholz (QDPI), Dave Merritt, Bronwen Cribb and Myron Zalucki.**

Mark Wade has recently moved across the ditch to Christchurch to work with **Steve Wrattens** group. He should finish his thesis soon! Congratulations to **Ian** and **Cath Newton** on the birth of baby Clare. Ian is anxiously awaiting the examiners reports on his thesis as well. **Kukuh Hernowo** returned to Indonesia after submitting his master's thesis on trichogramma egg parasitoids

Glenn Bellis (**NAQS**, Darwin) visited **Margaret Schneider** in December to discuss his PhD thesis project and to go through the procedure to have his candidature confirmed. Glenn's thesis will involve a revision of the planthoppers belonging to the tribe Delphacini. We welcome a bunch of students all starting their PhD's with **Gimme Walter**: **Adriana Najar** (cotton aphids), **Lindsay Popple** (cicada sexual communication), **Andrew Manners** (*Aconophora* host relationships) and **Rukmowate Brotodjojo** (trichogramma egg parasitoids). Another new PhD student **Geof Pittman** has also joined the School to work on an ARC funded project with **Scott O'Neill's** group together with **Steven Brumbley** and **Peter Allsopp** at **BSES**.

Mitsuhiko Toda from the Japan Wildlife Research Center (Shitaya, Taito-ku, Tokyo) headed a delegation that visited **UQIC** to discuss biodiversity issues and collections with **Margaret Schneider**.

Myron ZALUCKI

SOUTH AUSTRALIA

The team at Biological Survey of Dept of Environment has recently surveyed the fauna and flora in the areas of Mount Willoughby (North of Coober Pedy), Burra, Berri and Renmark and Elliston on

Two ways of taking the edge off a good South Australian Christmas party!

Dennis Hopkins insists on giving a speech

and Angela Lush with Megan Leyson just have to distribute their Kris Kringle prizes.

Eyre Peninsula. Our teams include invertebrate people who target insect trapping. **Lynette Queale** has been sorting through large numbers of micropits and insects collected in the vertebrate pits. Lists of species will be published in reports when the surveys are complete.
This year surveys of the Anangu-Pitjinjatjara lands, Murray Mouth and Southern Mount Lofty Ranges have been released and include lists of invertebrates.

South Australian Research and Development Institute
Chris Krawec joined SARDI in November 2003 as a research scientist to work on *Etiella behrii* (lucerne pod borer) in lentils. In recent years Etiella has caused damage to lentil seed that has exceeded the 1% damage threshold set by industry. The project is funded by GRDC and is a collaborative effort with DPI staff based at Horsham. Chris and **Dennis Hopkins** visited Horsham in early December to do some project planning with **Trevor Bretag**, **Felicity Pritchard** and **Cheryl Exell**.
In late November, Dennis Hopkins visited **Phil Michael** and **Svetlana Micic** at Albany (WA) to look at the GRDC project on vagrant insects in swathed or windrowed crops. Following the trip to Albany, Dennis spent a day with **Bill Wood's** fruit fly group at South Perth (WA Ag) to have discussions on the sterile Medfly program before returning to Adelaide.
There currently exists a passive and active surveillance program for the Red Imported Fire Ant (RIFA) to detect the presence of the ant. **Bill Kimber** and **Ken Henry** were "on the Fire Ant ball" when they recently identified an interception of *Solenopsis geminata*, the Ginger Ant or Tropical Fire Ant at the Adelaide Airport. After being noticed by Australian Air Express staff these ants were collected by an AQIS inspector from pallet wrappings of goods originating in India. Bill and Ken immediately carried out a visual inspection of the Aust Air Express warehouse the following day and found no further *S. geminata.* No more *S.geminata* were detected during a thorough survey of the area surrounding the warehouse two weeks alter using both visual and baiting collection methods.

University of Adelaide
In November, **John Jennings** and **Nick Stevens** spent several days at ANIC sorting through all of the wasp families in the collection gathering specimens to be photographed as part of the forthcoming Lucld key to families of Hymenoptera being prepared by Andy Austin, John and Nick. Nick also took the opportunity to sort agathadine wasps for his own research at both ANIC and the Australian Museum.
Andrew Austin and **Nancy Schellhorn** accompanied PhD student **Cate Paull** in November to Coonawarra to update the Coonawarra grape growers with findings from Cate's research. "We must have said something right" Cate said, as the growers are letting us conduct our experiments in their vineyards this season. The experiment will investigate parasitoid response to host density. Is there a right way of telling growers you want to put out 2000 hosts in to their vineyards? This number of hosts only gets larger as you explain the importance of replicating the experiment *and* that you would like to conduct the experiment at more than one site. Despite the three of them denying it, we suspect the acceptance of such an experiment had something to do with imbibing some of those Coonawarra reds.
Sylvia Clarke whose PhD project is on ant communities in the Flinders Ranges is off to the "Southern Connections" conference in Cape Town, South Africa where she will be presenting some of her PhD results on ant-plant interactions. **Andy Austin** has a new post-doc: **Nick Murphy** (from Deakin University, Warrnambool Campus) who will be working on the molecular phylogenetics of lycosid (wolf) spiders and scelionid wasps.
And for some romance, PhD students **Claire Stephens** married **Jason Bobbin** in Braidwood, NSW on November 29, 2003 and flew off for an Island honeymoon.

Glenys WOOD

TASMANIA

Forestry Tasmania
The dry summer seems to have produced huge populations of eucalyptus leaf beetles and weevils that are making meals out of Tasmania's eucalypt plantations. By the time you read this, **Jane Elek** hopes that the APVMA will have approved a modification of the label for Success* that will permit its use as a more environmentally friendly insecticide for managing eucalypt insect pests. Meanwhile Jane has begun testing eucalypt stem injection of other new products, hoping that one can be developed as a further management option. **Belinda Yaxley** and **Gabriel Warren** are continuing to sort our backlog of insect biodiversity samples and database parts of the Tasmanian Forest Insect Collection (TFIC), so that **Simon Grove**

One Greg-garious SARDI entomologist apparently took refuge by entering solitary phase

can get on with the analyses that he hopes will inform forest management. **Dick Bashford** and **Tim Wardlaw** have recently completed the field training component of an ACIAR forest health project for some South Pacific island nations, visiting Tonga, Samoa, Vanuatu and Fiji. Dick reports that he suffered badly from the effects of green kava in Vanuatu. Dick and Tim also recently gave presentations to the Australian Forest Health Advisory Committee on the merits of static trapping in urban areas for the detection of exotic foreign insects. The Asian gipsy moth detection/trapping program is under way in Tasmania, with traps set up at six ports and at Hobart airport. Dick has also been busy reorganising the space allocated to the TFIC to make it safer and more accessible for users. **Jeff Meggs** has recently returned from a study tour encompassing parts of North America and Europe, looking at options for management of dead wood (and its biodiversity, especially invertebrates) in production forests. A striking difference is that in Tasmania we still have our dead wood in our ecosystems and want to find ways to keep it, whereas in these other areas they're trying to figure out ways to put it back into their ecosystems after losing much of it through years of intensive forestry.

Department of Primary Industry, Water and Environment

Plant Health Group

Cathy Young was appointed in late October 2003 on a six-month contract as an entomologist to replace **Owen Seeman** who moved to the Queensland Museum. In the same week that she submitted her PhD thesis, Cathy was dropped in the deep end at New Town Laboratories with two major cherry/codling moth fumigation trials scheduled for December and February as part of a program to gain access to the Japanese market. Cathy sent the report of the December trial to Tokyo just before Christmas and finally got a brief respite to catch up with her family (oh, and write some papers!) after eight years undergraduate and postgraduate study at University of Tasmania. **Lionel Hill** hopes to have the DPIWE pest records data-

base on-line with the Australian Plant Pest Database, coordinated by Plant Health Australia, by February 2004. BioLink software will eventually replace Microsoft Access for data entry but Oracle software is used for exporting data to the APPD.

Department of Primary Industry, Water and Environment
Nature Conservation Branch
Niall Doran (Threatened Species Zoologist at the NCB) contributed the following update on threatened invertebrate information and management in Tasmania. The Tasmanian *Threatened Species Protection Act* 1995 is very progressive in terms of recognising invertebrates and their conservation needs. Of 196 listed fauna species, 123 (63%) are invertebrates. Under the legislation, these species are not only protected by law, but Listing Statements are required to provide readily accessible information on the species to the public, and – in the longer term – Recovery Plans are required to identify and direct their management needs. Prior to 2003, only 7% of currently listed fauna species were represented by completed Listing Statements (totalling 14 species: 7 vertebrates and 7 invertebrates). This level has now been raised to 39% (76 species: 15 vertebrates and 54 invertebrates) by the Threatened Species Unit in co-operation with both the Tasmanian World Heritage Area Program and the Forest Practices Board. Draft statements for a further 47 species are being completed by **Esmé Atkinson** with the help of relevant specialists. This will boost the current total to 63% of listed fauna (123 species: 21 vertebrates and 102 invertebrates). Completed Listing Statements will be available via the Department's web page [www.dpiwe.tas.gov.au] in the near future. Substantial work is also being undertaken to prepare and implement Recovery Plans for these species. Following the successful development of the Burrowing Crayfish Group Recovery Plan in 2000 (covering four State and Commonwealth listed *Engaeus* species), further combined Recovery Plans are under way as an efficient and effective means of managing species groups. Of particular entomological interest is a Stag Beetle Group Recovery Plan currently being prepared by **Belinda Yaxley** (covering five State listed species, including the first Tasmanian beetle and sixth Tasmanian invertebrate to be listed at a Commonwealth level). A draft of this plan will soon be available for public comment. Various new regionally focussed plans are also in development.

University of Tasmania: School of Agricultural Sciences
Summer has seen **Ann Gaffney** in the field observing insect pollinators in carrot crops. **Mamoru Matsuki** has also returned to Tasmania from his base in Albany in WA for summer field research in plantations. **Luke Rapley** and **Anthony Rice** are both busy writing up their PhD's. **Karina Potter** was awarded her PhD in December for her research on ragwort biocontrol and has taken up a position at FRI at Rotorua in New Zealand. **Geoff Allen** is trying to complete as many loose ends as possible before heading off overseas on study leave for the majority of 2004.

Australian Antarctic Division
Penny Greenslade is back at the AAD. This time her job is to revise and update the Division's comprehensive database on subantarctic and Antarctic freshwater and terrestrial invertebrates. The database is currently freely available and is being progressively exposed to GBIF portals. In February Penny will be working in the quarantine policy section of the Division for a few weeks to revise the quarantine management practices applied to expeditioners and cargo travelling to the Antarctic and subantarctic from Tasmania and the mainland of Australia.

Queen Victoria Museum & Art Gallery, Launceston
Brian Smith reports that the QVM opened an exhibition called "Up-Close and Spineless" just before Christmas. It will be available to schools and the public for six months. Although the exhibition is based on the winning entries (and a selection of others) in a photographic competition run by the Australian Museum, the QVM has greatly augmented these. The emphasis is on the showy and spectacular, but it attempts to get across the principles of variety, diversity and abundance. The centrepiece is a life-sized mural of a giant squid, with real specimens of parts of an *Architeuthis* sp. to back this up. Insect diversity is the theme of another case, with the display of "Amazing Invertebrates" including some particularly impressive phasmids. A comprehensive education programme is planned for Term 1 once the schools go back plus several special weekend family events. So, hopefully, some people in northern Tasmania, plus the many visitors brought over on the ferries Spirits 1, 2 & 3 may have a closer encounter with some of our invertebrates in the next few months.
The QVM has been the lucky recipient of a refer-

ence collection from Forestry Tasmania, comprising forest entomological 'peripherals': spiders for **Lisa Joy Boutin**, multipedes for **Bob Mesibov** and snails for **Brian Smith**. The spider component is considered particularly valuable. QVM has also taken delivery of the de-beetled residues from a large pitfall trapping study carried out by FT (**Belinda Yaxley** and **Simon Grove**) in NE Tasmania. The study looked at ground fauna in plantations and associated native forest wildlife habitat strips.

INVERTEBRATE – Celebrating Tasmania's invertebrate biodiversity

Not to be outdone by those northerners at the QVM, southern Tasmania has its own forthcoming celebration of invertebrates in the form of a series of events with an invertebrate theme on Mount Wellington, funded primarily by the Australia Council. To quote from the publicity blurb: "an exciting team of musicians, performers, writers and visual artists in consultation with some of Tasmania's most highly acclaimed scientists have embarked on a journey into the fascinating world of invertebrates on Mt Wellington. In these macroscopic and microscopic worlds layers of activity unfold and flow into a rich tapestry affecting our water quality and providing inspiration for artists, scientists and children" (I think that was written by an artist, don't you? - SG). The highlight will be a large-scale outdoor performance event at The Springs on Sunday 28th March. And who are those highly acclaimed scientists? None other than **Peter McQuillan**, **Leon Barmuta**, **Alastair Richardson**, **John Gooderham** and **Gustaaf Hallegraeff** (all from the **University of Tasmania**) plus **Michael Driessen** from **Parks and Wildlife**.

Finally, this year's entomologists' pre-Christmas lunch at the Riverview Inn in Sandy Bay was a relatively quiet affair, but for the eight who attended it was pleasant nonetheless. Owen and Helen, we need you back here!

Simon GROVE

VICTORIA

La Trobe University

CESAR and La Trobe's **Institute for Advanced Study** are hosting a visit from **Maurizio Paoletti** from the University of Padua, Italy. Professor Paoletti has made a major contribution to the development of invertebrate biodiversity for sustainability indication. "Minilivestock Ecology as Potential Reduction of Environmental Impact" (Science Publ. Inc. Enfield, New Hampshire, USA) edited by Professor Paoletti will be released in June this year and includes a chapter by **Alan Yen**.

Brad Rundle (The biology of Trichogramma: towards improving commercial production and the enhancement of natural populations) **Paul Umina** and **Andrea Magiafoglou** (*Drosophila serrata*: analysis of the southern species border) submitted Ph D theses. **Michael Nash** has enrolled for a Ph D to continue with investigation of influences on Carabid control of slugs in crops (with **Paul Horne**) following interesting results in his Honours research project. **Melissa Carew** is using chironomids as bioindicators of aquatic pollution in urban areas. Identification (to species) of chironomid collections from 100 wetlands around the Melbourne, using both molecular and taxonomic techniques, reveals differences among the distributions and sensitivities to aquatic pollutants. We hope to harness this variation to use chironomids to assess the health of Melbourne's streams and wetlands. **Yvonne Parsons** is DNA profiling key indicators for biological monitoring and investigating the genomics of pollution response in aquatic ecosystem macroinvertebrates.

Grape phylloxera, *Daktulosphaira vitifoliae*, is a devastating root pest of the cultivated grapevine species *Vitis vinifera*. The insect is indigenous to North America and was introduced to Australia in the late 19th Century. Rootstocks, derived from *Vitis* species native to North America, are used worldwide to prevent root damage by the insect. **Angela Corrie** used microsatellites, to show that grape phylloxera populations in Australia are comprised of genetically diverse asexual lineages and there is considerable spatial structuring of this genetic diversity. The impact of host associations on the genetic structure was explored and it was shown that certain asexual lineages of grape phylloxera are associated with different rootstocks. To ensure rootstocks recommended for use in Australia are indeed resistant/tolerant to different types of phylloxera, rootstock performance is been assessed using the most common phylloxera lineages.

Ann Stocker is completing a study on the frequency of chromosome inversions in *D.serrata* populations along a north-south cline from Cooktown to Terrigal.

Linda THOMSON

Entomological Society of Victoria

The *Victorian Entomologist* has launched into colour; well at least for the December 2003 issue

which features the Sun Moths. **Peter Marriott** has photographed a specimen from Melbourne Museum's collection of each species and colour morph known from Victoria. This is accompanied by an article that summarises the talk that **Fabian Douglas** gave to the Society in August, together with a bibliography of the Lepidoptera: Castniidae. Also in the issue is a comprehensive summary of the Butterflies of Kangaroo Island.

In October **Nick Porch** presented some of the results from study on the ecology and biogeography of subfossil beetle assemblages. From a Bioclim analysis of extant genera and species he extrapolates the modern climate conditions to his fossil collections and challenges the results obtained from palynological analyses.

A few members made a field excursion to Gilwell Scout Park to contribute to the site's environment management plan. In spite of heavy rain a few aquatic voucher specimens of Ephemeroptera, Trichoptera and Hemiptera were left for the use of the Scouts in their environmental studies. Light trapping produced good catches of moths resulting in additions to the species list already generated from a couple of hundred previous specimens.

Ian ENDERSBY

WESTERN AUSTRALIA

Agriculture WA

David Cousins and **Sonya Broughton** have started work on a HAL-funded project to develop and implement an IPM program in citrus for local growers. Results to date show that scale is one of the key pests after Mediterranean fruit fly. For the second year, Kelly's citrus thrips has also been found attacking developing fruit in Harvey over Xmas/New Year, but this pest is not as damaging as has been experienced in South Australia.

James Altmann from Biological Services visited Agriculture WA late last year. **Sonya Broughton** and **David Cousins** accompanied James into the field to search for *Metaphycus luteolus*, a parasite of soft brown scale. *M. luteolus* was released in 2002/03 as part of a national program. Whilst in WA, James also presented informative talks on IPM to citrus growers in Burekup and Bindoon. James just had time to catch up with **Stephen Goodwin** before flying out. Stephen was in Perth to deliver a workshop on IPM in glasshouses. Attendance by local growers was excellent, with one grower coming all the way from Carnarvon.

Dept of Conservation & Land Management

Both **Janet Farr** and **Paul van Heurck** attended the AES conference in Hobart. Paul gave a very interesting paper on Fire and terrestrial invertebrates in south-west Western Australia that was very well received by all delegates. Janet gave an interesting paper on the outbreak of Gum Leaf skeletoniser, *Uraba lugens*, in the SW of WA. This was also well received.

After the AES conference at Hobart **Rolf Oberprieler** visited WA where he collected weevils from Lancelin, north of Perth and looked at the holdings of *Oxyops* and *Gonipterus* in the WA Museum, WA Agriculture Department and CALM. While at CALM he identified a number of weevils collected in our FORESTCHECK collection.

Paul and **John Majer** have been supervising **Dulana Herath**, an honors student, who is studying the impact of fire on the forest floor beetle communities in old growth forest in the Walpole-Nornalup National Park. The area concerned is a large wildfire area in the Nuyts Wilderness and this is being compared with the old growth forest, which has various areas that have been burnt at different times in it.

Tom Burbidge, **Janet** and **Allan Wills** completed the spring collections from the third round of FORESTCHECK plots in the jarrah forest south and east of Perth in December. Over 900 morphospecies have now been catalogued and the numbers of *Austromerope poultoni* from the forest areas continues to grow. Amongst the pitfall trap samples there was a *Peripatus*. This *Peripatus* is a most significant find, as it has not been seen in WA for a very long time.

Western Australian Museum

The projected move of all curatorial sections and their collections from the central Perth site to the industrial suburb of Welshpool has been delayed somewhat. The budget for fit-out of the large warehouse purchased for the storage of collections has just been increased and staff and consultants continue to work to achieve a functional layout of offices, laboratories and storage areas. The move is projected to be completed by the end of the year. Meanwhile, work continues on preparing the insect collection for relocation and a moratorium on loans is expected to remain in force during 2004.

In December, **Terry Houston** successfully undertook the first of a series of summer excavations for sandgropers (Orthoptera: Cylindrachetidae) in the northern wheatbelt of WA as part of his study of the biology of these insects.

University of Western Australia
Forensic Entomology

The Centre for Forensic Science at the University of WA was opened December 2002 by Hon Geoff Gallop (WA Premier) with **Ian Dadour** as Director. This centre is a postgraduate school offering a Graduate Diploma, a Master and combined Master/PhD in Forensic Science. As part of all these degrees an intensive course in forensic entomology is offered by Ian to students. Over the past five years the Forensic Science Unit as it was formally known has become a major centre in decomposition and forensic entomology research. A number of students are now finishing their MSc Forensic Science on this topic. **Evan Roeterdink** has just submitted his thesis and has had a manuscript accepted for publication on Extraction of Gunshot Residues From the Larvae of the Forensically Important Blowfly *Calliphora dubia* (Macquart) (Diptera: Calliphoridae) and **Filipa Carvalho** has also submitted her thesis on A Molecular Method for the Detection of Ingested Host DNA in the Larvae and Pupae of the Forensically Important Blowfly Species: *Calliphora dubia* (Diptera: Calliphoridae). In 2002 **Michelle Harvey** was the recipient of the international Rotary Ambassadorial scholarship. Michelle worked for one year with **Clarke Scholtz** and **Merv Mansell** at the University of Pretoria. As part of her work in South Africa Michelle worked a number of crime scenes with Merv sorting out the post mortem intervals. Michelle is now 2 years into her PhD. Two papers have just been published on the molecular identification of Australian and South African species of Calliphoridae. Recently, Michelle was short listed as a Rhodes Scholar and she has just received the Sir Keith Murdoch America Australia Association award to work at the Anthropological Facility (Body farm) at the University of Tennessee for 12 months. Mid next year **Ian Dadour** will be joining her for 6 weeks as part of a Scientific Visits to USA award. **Shari Forbes** has just had her PhD conferred from UTS and has joined the group to investigate the effect of various environments on the decomposition rates of humans. The emphasis will be to investigate the chemical and isotopic changes of decomposing tissues including the extraction of isotopes from fly larvae. As part of revamping forensic entomology in Australia, **Beryl Morris** and **Ian Dadour** have just finished reworking the chapter on forensic entomology in Expert Evidence. This was first published by Beryl in 1993.

University of Western Australia
Population Health

Andrew Jadine received First Class Hons for his thesis on dry-season breeding of *Culex annulirostris* in the Kimberley. He went sampling with **Phil Weinstein** and **Mike Lindsay** mid-year, and has now also been awarded an APA to do his PhD with the same supervisors. He will be studying the ecology of arbovirus vectors in different environments, assessing the health risks from anthropogenic environmental change. As if to encourage him, WA is in the grip of an outbreak of Ross River virus infections, with over 250 cases already notified from the Mandurah region south of Perth at the time of writing.

Tara SIMMUL

PAPUA NEW GUINEA

NAQIA

Roy Masamdu left NARI at the end of September to join NAQIA as Chief Quarantine Officer (Plants) and is now based in Port Moresby. **Marjorie Kame** joined the NAQS team in mid-September for the joint PNG/Australia Border survey. Marjorie was also in Fiji to attend a training course on High Temperature Forced Air treatment, while **David Tenakanai** went to Rabaul to oversee the Red-Banded Mango Caterpillar project with colleagues from NARI. In November a Memorandum of Understanding was signed between Indonesia and PNG on Quarantine cooperation along the PNG/Indonesia Border. The agreement was signed by the respective Ambassadors and witnessed by Quarantine & Foreign Affairs Officials from both countries in Madang, PNG.

Ramu Sugar

Chris Hayward (CSIRO), **James Kaiulo**, **Rob Magarey** (BSES) and **Collin Piggin** (ACIAR) visited in early November to review an ACIAR project on the conservation of sugarcane germplasm. **Geoff Wiles** (NARI), **Roy Masamdu** (NAQIA), Prof **Abdul Halim** and **Jimmy Apeti** (both from Unitech) also visited in relation to this review. **Lastus Kuniata** visited PNG Oil Palm Research Association to see the research work being done at Kimbe.

PNG OPRA

Bill Page visited Ramu at the end of November to introduce the pollinating weevil, *Elaeidobius kamerunicus*, on the newly established oil palms. Bill has a passion for birds and wild life. While

there, a trip was made into the hills to find birds of paradise. This proved unsuccessful but the feeling of being by a natural water fall in a tropical rainforest was quite rewarding.

NARI

The new head-office complex at Bubia (outside Lae) looks very impressive. **Ingu Bofeng** has been trying to introduce a number of agents on siam weed and those already introduced are doing quite well.

A plant protection workshop is being planned for June 2004, at Vudal University, Rabaul. Those interested should contact: <lkuniata@ramusugar.com.pg>.

Lastus KUNIATA

NOTICES

Collecting permits

As a result of a fundamental reform of Commonwealth environment laws in recent years, the Australian Government under the Environment Protection and Biodiversity Conservation Act 1999 now requires persons undertaking an activity that is likely to involve the killing, injuring, taking, trading, keeping or movement of a listed invertebrate species in Commonwealth areas to obtain a permit.

Commonwealth areas are lands owned or leased by the Commonwealth; external Territories (except Norfolk Island); Jervis Bay Territory; and Commonwealth waters, which are generally waters outside the 3 nautical mile limit of State or Northern Territory waters, out to the limit of the Australian exclusive economic zone (generally 200 nautical miles).

For an application form, go to <http://www.deh.gov.au/epbc/permits/species/standard.html>

The International Conference on Controlled Atmosphere and Fumigation in Stored Products

CAF2004 will be held on the Gold Coast, Queensland, 8 - 13 August 2004. For details, see their website <www.caf2004.com>

CAF 2004 has negotiated special discount rates for delegates - you can enjoy the luxury of Conrad Jupiter's for just $AUD 185.00 per room per night (same rate for single, double or twin room) - the usual rates start at $AUD 252.00!! Alternatively, accommodation at the Broadbeach Travel Inn is offered to CAF delegates at just $AUD 110.00 per room per night.

These rates are only available if you make your reservation request on your CAF 2004 Registration form. Accommodation is in peak demand on the Gold Coast and availability of these discount rates is limited, so please book as soon as possible.

Submissions are invited for oral and poster presentation at CAF 2004 - the closing date is 31 March 2004. For further information or assistance please contact the CAF2004 Secretariat on caf2004@ccm.com.au or Fax: + 61 7 3369 3731.

Arthropod Collections of S.E. Asia

A 60-page booklet has been published by DAAF, listing the major insect collections of Brunei Darussalalm, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. The collections listed are those where there appears to be a long-term intention for their maintenance, whether for teaching or for scientific reference purposes. Copies are available, free of charge, from ASEANET Secretariat, PO Box 210, 43409 UPM Serdang, Malaysia [s.soetikno@cabi.org]. In case of difficulties, contact ian.naumann@daaf.gov.au.

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.
NOMINATION FOR MEMBERSHIP

Please return to: Ms Nancy Endersby, AES Secretary, c/o Institute for Horticultural Development, Private Bag 15, Ferntree Gully Delivery Centre VIC 3156 AUSTRALIA

We, the undersigned

Proposer .....
(print name) (signature)

Seconder .....
(print name) (signature)
being financial members of the Society, propose the following for membership of the Australian Entomological Society Inc.

Title.....Initials.....Given name.....Family name.....

of (Address) .....

.....Post Code.....

Tel. .....Fax .....

E-mail ..... Degrees, etc. .....

Interests, experience and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé) .....

I accept nomination and undertake, if elected, to abide by the rules of the Society and to pay annual subscriptions by the date prescribed.

Signature ..... **Date** .....

For **2003**: Annual subscription $110.00; full-time student or retired members $55.00 (incl. GST)

Students please attach proof of full-time student status
Payment in Australian dollars is required with nomination and may be made by MONEY ORDER, CHEQUE (made payable to Australian Entomological Society Inc.) or CREDIT CARD

Bankcard Visa Mastercard

Cardholder Name _____
Number _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Expiry date _ _/_ _

Signature _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ I require a receipt YES/ NO